

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT NO./TASK NO.	JOB ORDER NUMBER	APPROP. FY
QSS Group, Inc.	NAS5- 99124 TASK NO. 208 AMENDMENT	561-288-11-01-89	0 0

TASK TITLE: (NTE 80 characters; include Project name)

FODB Technology Development for NPP

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	MAIL CODE	PHONE
Joy W. Bretthauer <i>Joy W. Bretthauer</i>	2/2/00	561	561	301-286-1050
BRANCH HEAD	DATE	CODE		PHONE
Robert W. Stone <i>Two items for RWS</i>	2/3/00	561		301-286-5966
CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)	DATE	CODE		PHONE
Robert S. Lehair, Jr. <i>Robert S. Lehair</i>	2/4/00	560		301-286-6588
FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE (If YES, NEED CODE 303 CONCURRENCE NEXT BLOCK)	CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:		
<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.

(To be completed by Contracting Officer)
C.O. Requested Quote on:
Date: FEB 14 2000

Contractor will develop specification or statement of work under this task for a future procurement. ☒ NO ☐ YES

Flight hardware will be shipped to GSFC for testing prior to final delivery. ☐ NO ☐ YES ☒ N/A

Government Furnished Property/Facilities: ☒ NO ☐ YES - SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)

Onsite Performance: ☐ NO ☒ YES If yes: ☐ TOTAL ☒ PARTIAL
If partial, indicate onsite work in SOW by asterisk (*)

Surveillance Plan Attached: ☒ NO ☐ YES

Highlighted Contract Clauses: (to be completed by Contracting Officer)

INCENTIVE FEE STRUCTUR(check one)

(See Contract NAS5-99124, Attachment K, Incentive Fee Plan)

	No. 1	No. 2	<input checked="" type="checkbox"/> No. 3	No. 4	No. 5
Cost	10%	50%	25%	25%	20%
Schedule	15%	25%	25%	50%	40%
Technical	75%	25%	50%	25%	40%

(To be completed by Contracting Officer)

The target cost of this task order is \$ _____.
The target fee of this task order is \$ _____.
The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ _____.
The maximum fee is \$ _____.
The minimum fee is \$0.

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

SIGNATURE OF CONTRACTING OFFICER DATE TYPED NAME OF CONTRACTING OFFICER

CONTRACTOR'S ACCEPTANCE:

AUTHORIZED SIGNATURE DATE

REQUEST FOR TASK PLAN / TASK ORDER

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QSS Group, Inc.	NAS5- 99124	208	

Applicable paragraphs from contract Statement of Work: Function 3C

STATEMENT OF WORK: (Continue on blank paper if additional space is required)

The contractor shall provide engineering services in support of FODB Protoflight Hardware Development for the NPP project. Engineering services shall include fabrication, test, and demonstration of four, protoflight Parallel Fiber Optic Receivers (PFORX). Each twelve-channel, protoflight, PFORX receiver shall operate at 125 MHz, have a minimum 6 dB dynamic range, be IEEE 1393 compliant, and receive 1 gigabit per second (Gbps) data when operating within NASA/GSFC's PFODB Evaluation and Test System.

The contractor shall provide personnel and facilities to perform the following:

1. Prior to Item 2, submit: (1) PFORX parts/materials list; (2) a report verifying parts/materials meet EOS PM thermal, vibration, and radiation environment for protoflight components; also list components which require characterization
2. Procure the PFORX receiver die and materials

(continued on Page 3)

PERFORMANCE SPECIFICATIONS:

(Items 7,8,9) Prior to delivery, an on-site demonstration verifying error-free, 1.0 Gbps data transfer rate of the PFODB Evaluation & Test System shall be performed at NASA/GSFC. Error-free is defined as transmitting and receiving data without corruption, at a maximum bit error rate of 1×10^{-9} . All specified hardware and documentation shall be delivered.

APPLICABLE DOCUMENTS:

PFORX Performance Specification	CFBIU Schematic	CFBIU Front Panel
PFORX Evaluation Test Plan	CFBIU Board Parts List	FBIU Board Parts List
PFORX Schematics, Layouts, and Parts List	CFBIU Front Panel	FBIU Front Panel
PFORX Design Analysis		

Doc#: GSFC 422-11-12-01 Revision A/General Interface Requirements Document for EOS Common
Spacecraft/Instruments EOS PM Project / January 1994

TASK END DATE: 06/30/01

MILESTONES/DELIVERABLES AND DATES:

The following milestone numbers correspond to the task activities specified in the Statement of Work. Task activities shall be completed on or before the date specified below:

	<u>Completion Date</u>
Items 1 and 2	04/12/00
Item 3	09/27/00
Item 4	12/20/00
Items 5 and 6	03/14/01
Item 7	06/06/01
Items 8 and 9	06/20/01

PERFORMANCE STANDARDS:

Schedule: On-time delivery/completion of the above
Technical: Performance of delivered material acceptable

FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):

Joy W. Bretthauer, building 23, room E323

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STATEMENT OF WORK: FODB Technology Development for NPP (Continued)

3. Assemble one (1) PFORX multi-chip module (MCM), complete performance evaluation testing, and deliver test results
4. Assemble three (3) additional PFORX MCMs, complete performance evaluation testing, and deliver test results
5. Retrofit PFODB Evaluation and Test System, with the three (3) PFORX MCMs and a 125 MHz oscillator
6. Document all modifications to the existing PFODB Evaluation & Test System
- * 7. Demonstrate at GSFC: three PFORX MCMs in the PFODB Evaluation and Test System; overall system shall transfer 1.0 Gbps data, error-free, and have a 6 dB optical link margin
8. Deliver three (3) PFORX MCMs integrated, tested, & demonstrated (per Item 7 above) in the PFODB Evaluation & Test System; overall system shall transfer 1.0 Gbps data, error-free, and have a 6 dB optical link margin; deliver one, spare PFORX MCM
9. Deliver a report which contains: (1) all technical problems and system limitations which adversely impact performance (i.e.-1.0 Gbps data transfer rate and 6 dB optical margin); (2) performance evaluation test results for each PFORX; (3) all hardware and software modifications made to the original PFODB Evaluation and Test System; (4) if applicable, recommendations for hardware modifications necessary to achieve, error-free, 1.0 Gbps data transfer with a 6 dB optical link margin; (5) a complete parts and materials list of all delivered PFORX MCMs; and (6) schematic with named pin-outs and package drawing with dimensions for all delivered PFORX MCMs.